

Remarks

Claims 5-21, and 24 are pending.

Claims 5-21 and 23 are rejected.

Claims 5, 6, 10, and 21 have been amended.

Claim 24 is new.

Examiner Interview

An interview was held between Derek Meeker, an attorney for the Applicant, and the Examiner on November 14, 2006. The rejections to the claims were discussed with respect to Jones. The Examiner agreed to withdraw the 35 USC 112 rejections regarding claims 5-9 and 20-23. In addition, the Examiner agreed to withdraw the 35 USC 103 rejections regarding claims 20-23.

Claim Amendments

Claims 5, 6, 10, and 21 have been amended. Claim 24 is new. Support for the amendments may be found in the application as filed, for example, on page 3. No new matter has been added.

Claim Rejections under 35 USC § 101 and 35 USC § 112

Claims 5-9 are rejected under 35 USC 101 and 35 USC 112, first paragraph. Claims 20-23 are rejected under 35 USC 112, first paragraph. As described above, the Examiner agreed to withdraw the rejections 35 USC 101 and 35 USC 112 rejections.

Page 4, ll. 12-18 of the application describes an example of a specific utility of claims 5-9. In particular, the optical wheel of claim 5 may be “employed in a computer mouse.”

FIGs. 2 and 3 describe an axis and a maximum intensity of the light of claim 20.

Claim 21 has been amended for clarification.

Pages 1-3 describe the relationship of a square wave and a sinusoid as used in claim 23. In particular, see page 1, ll. 26-27, page 2, ll. 24-27, and page 3, ll. 1-6.

Claim Rejections

Claims 5-19 are rejected under 35 USC 103(a) as being unpatentable over Jones et al. (US Patent No. 4,906,843).

Independent claim 5 and 10 as amended explicitly include an advantage of the optical window

The Examiner indicated that claims 5 and 10 were rejected because the claims do not cite an advantage, a particular purpose, or the solution to a stated problem. See Office Action dated August, 28, 2006. Claim 5 has been amended to recite that a variation in width of each window corresponds to a light intensity distribution of an associated light source. Claim 10 includes a similar element. As a result, independent claims 5 and 10 now explicitly include reference to an advantage provided by the hourglass shaped window.

Jones does not suggest such a relationship between the width of the sectors 74 and 76 of the encoder disks 58 and 60 and the light intensity distribution of the photoemitters 62 and 64. At most, Jones suggests that a beam width of the photoemitter may be large relative to the width of a sector. Jones, col. 6, ll. 41-44.

Accordingly, the Applicant requests that the Examiner withdraw the rejections of claim 5, 10, and dependent claims 6-9, and 11-14.

Jones does not describe a window with a width varying inversely to an intensity of a light source

Claim 24 recites that each hourglass-shaped window is shaped such that the variation in width of the window varies inversely to the light intensity distribution of the light source. Claim 21 includes a similar element. As described in the application on page 3, ll. 1-6, a width that varies inversely to a light intensity results in a waveform having a more ideal shape. As described above, Jones does not describe such a relationship between intensity and window shape. Accordingly, the Applicant requests that the Examiner withdraw the rejections of claim 21 and 24.

An explicit advantage, purpose, or solution is not required for a finding of non-obviousness

Claim 15 has not been amended to include such an advantage, purpose, or solution as in claims 5 and 10. Although claims 5 and 10 have been amended according to the Examiner's suggestion, an explicit reference to an advantage, a particular purpose, or a solution to a problem are not required in a claim for the claim to be non-obvious. The Applicant has previously supplied a declaration under 37 CFR 1.132 and provided additional arguments why such an hourglass shaped window is not obvious.

The Applicant requests that the Examiner provide a statute, rule, regulation, case law, or other authority specifically stating that a claim must recite an advantage, purpose, or solution to a problem in order to be non-obvious.

Conclusion

For the foregoing reasons, reconsideration and allowance of claims 5-24 of the application as amended is requested. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Customer No. 32231

Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.

A handwritten signature in black ink, appearing to read 'Derek Meeker', is written over a horizontal line.

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